Epi Notes
Disease Prevention and Epidemiology Newsletter
South Carolina Department of Health and Environmental Control
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Changes in the SC 2005 List of Reportable Conditions and Why Disease Reporting is Important!

DIXIE ROBERTS, MPH, RN

By the authority of South Carolina Statute # 44-20-10 and Regulation # 61-20, DHEC designates those conditions that shall be reported by health care providers and laboratories. Each year in January, DHEC updates the List of Reportable Conditions. The revised list is published in the Epi-Notes Newsletter and made available on the DHEC web site.

In comparison to the many changes in last year's list, the 2005 List of Reportable Conditions contains only two revisions and three additions; no conditions were deleted. Please take a few moments to familiarize yourself with the changes and review the "How to Report" and "What to Report" sections. Brief explanations regarding the changes can be found on pages 4 - 5 along with copies of the List on pages 6 -7. Also, be aware that several of the District Public Health Offices have had address or phone number changes for their Epidemiology / Disease Reporting Office, so please discard the 2004 list and refer only to the updated information for 2005. Large color posters and new disease reporting cards will be available from your local health department. You may print or download a copy of the list from the Bureau of Disease Control home page on the DHEC Web site at www.scdhec.net. Scroll down the "Health Information" column and click on "Infectious Diseases."

Conditions that have been added include:

- Creutzfeldt-Jakob Disease (Age < 55)
- Influenza, pediatric death (age ≤ 17)
- Meningitis, aseptic

Conditions that have been revised:

- Listeriosis - added reference to footnote # 7 to request Labs to submit isolate to the DHEC Lab for typing.
- Influenza, positive rapid flu test by # (changed to report by number only)

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Got Shigella? A Community Responds

Fran Hall, RN, BSN
Pee Dee District Director, Disease Surveillance & Response
Stacy Holley, RN, BSN
Disease Surveillance & Response Nurse

In early August of 2004, a local school nurse in Marlboro County notified the District DHEC Epi Nurse that about half the children in a pre-k class had a diarrhea illness, which seemed to be spreading. This was a large school of approximately 800 students in grades pre-k to eight and was very close to the North Carolina border. An epidemiological investigation was initiated immediately, which soon confirmed an outbreak of Shigella.

The main objectives of the investigation were to stop further transmission and to identify the causative organism. A Physician's Advisory was prepared and faxed to all healthcare providers to alert them about the increased number of cases of Shigella. Included in the advisory was information on transmission modes, symptoms, treatment methods, and ways to report illnesses to DHEC. Physicians were also directed to the DHEC web site for accessing the 2004-2005 School Exclusion Guidelines to assist them in determining when a child could return to school. Communication with local physicians and emergency rooms in the area, including those across the border in North Carolina, proved to be key factors in the investigation and response.

The school administrative staff responded immediately to DHEC recommendations and began a more intense and vigorous cleaning schedule throughout the school. Teachers and other staff began observing students washing their hands and ensured that soap and other supplies were readily available. Staff and children with diarrhea were excluded from school. A parent letter was sent out along with a package of information containing notification about the outbreak, disease facts, the importance of hand washing, and the school exclusion guidelines. Parents were instructed to take the letter with them to their child's physician.

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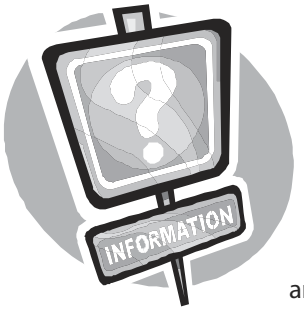
The DHEC Epi Team contacted every person who was reported to have symptoms. A questionnaire was completed on each patient that included critical information such as illness onset date and names of any household contacts who were ill. This data helped to assess the likelihood of food or waterborne contamination. The District Environmental Health Supervisor inspected the school cafeteria, bathrooms, and other sites in the school. for potential problems. Local newspapers and television stations ran segments on the outbreak, with a focus on handwashing as the best method of prevention.

Approximately 80 cases of Shigella were identified in the outbreak. Stool specimens were analyzed by various labs, including DHEC's Bureau of Labs and the State Lab of North Carolina. Seven samples were prepared from subcultures for DNA fingerprinting. Pulsed field gel electrophoresis (PFGE) restriction fragments were obtained using the Xba I endonuclease enzyme and were processed using the Chef Mapper. All seven isolates had the same DNA fingerprint pattern SCSSX088. This is related to the most common pattern SCSSX053 (associated with a large Waccamaw District outbreak) by a one-band difference and to pattern SCSSX061 (associated with recent outbreaks in the Upstate) by a two-band difference. Pattern SCSSX088 was first isolated from an Anderson patient in October 2003. The second occurrence was seen in a patient from Greenville in March 2004. This outbreak marks the third time this pattern has been detected in South Carolina. No environmental source of contamination, such as food or water was found in this outbreak. The dates of onset among cases suggest a person-to-person transmission, which is typical in outbreaks of Shigella. The physician's role in early identification, specimen collection, and prompt reporting was instrumental in helping DHEC control the outbreak. The fast actions of the community demonstrated an incredible spirit of willingness and cooperation. This is a fine example of an organized and collaborative approach in detecting and responding to an infectious disease outbreak. For additional information or to report cases of Shigella, please contact your local health district office. The list of reportable diseases and contact numbers can be found on the Bureau of Disease Control web page at http://www.scdhec.net/hs/diseasecont/disease.htm.

DISEASE INFORMATION

Shigella is a gram-negative bacilli, causing acute, bacterial infection involving primarily the large intestine. Four species, with over 40 serotypes have been identified. Clinical manifestations most often include watery or loose stools, but can be more severe, causing fever, abdominal cramps, tenesmus and mucoid stools with the presence or absence of blood.

Shigella is transmitted by direct or indirect fecal-oral route. Children less than 5 years of age in childcare settings, caregivers of young children and people cohabiting in crowded conditions have an increased risk for infection. There is also risk of infection for travelers to countries with poor sanitation. Few organisms (10-100 organisms) are needed for infection to occur. Other transmission modes include ingestion of contaminated food or water, contact with contaminated objects, and sexual contact. The incubation period for shigellosis infections is 1-7 days, but most commonly 2 to 4 days. Illness is usually self-limited; lasting an average of 4-7 days. The severity of illness and the case fatality rate are functions of the host and the serotype. The use of antimicrobials shortens the duration of illness. In mild cases of illness, the goal of treatment is to prevent the spread of organisms. Shigellosis is best diagnosed by stool culture. The best way to prevent transmission of shigellosis is through thorough and frequent hand washing. (American Academy of Pediatrics; 2003: (551-552).



Ask Epi

Here in the Division of Acute Disease Epi, we receive questions on a regular basis from providers regarding all matter of issues relating to infectious diseases, public health and epidemiology. We invite our readers to submit questions .to AskEpi@sc.dhec.gov. In our last issue AskEpi discussed the matter of False Positive IgM tests. Here we address questions relating to BCG and tuberculin skin testing.

Question: One of my patients, a 25 year old nurse from Thailand, was scheduled to receive a routine pre-employment tuberculin skin test (TST) at our local hospital. She said she thought she should not be skin tested because she had received BCG vaccine in her home country years ago and "what was the point of getting tested" since she would "always be tuberculin positive because of her BCG anyway." She was also worried that an injection of tuberculin would be unsafe and could "slough her arm" and recalled being told that since she had received BCG she should actually never be skin tested again. Finally, she wondered if the whole issue of TB testing for her might actually be moot since she was protected by her BCG. In my practice, I've had similar questions from other foreign-born patients who also have had BCG. What approach do you recommend?

Answer provided by Eric Brenner, MD: Several issues are raised by this interesting question including: (a) the efficacy of BCG vaccination; (b) the effect of BCG vaccination on the tuberculin

(see ASK EPI - page 3)

(ASK EPI - continued from page 2)

skin test; and (c) the broader question about tuberculosis among foreign-born residents of the United States.

BCG Vaccine Efficacy BCG (Bacillus of Calmette and Guerin) vaccines are live vaccines which are descendents from a strain of Mycobacterium bovis attenuated in France over 80 years ago. Different strains have different biological characteristics including growth characteristics, protective efficacy, and ability to produce an immune response to tuberculin.(1) BCG is widely used around the world, especially in high-incidence tuberculosis countries where coverage and quality of TB control programs is suboptimal. Prospective studies performed at different times and places have shown efficacy ranging from 0% to 80% in preventing adult-type infectious pulmonary tuberculosis. Retrospective case control studies have shown efficacy of the order of 40-80% in preventing miliary TB and TB meningitis in young children.(1) This justifies use of BCG in countries where these serious complications of childhood TB are common though the benefits are felt to be "humanitarian" rather than "epidemiologic" since children with these forms of illness are not infectious. Thus BCG is essentially used to prevent a certain proportion of severe and/or fatal cases of pediatric TB but not with any realistic expectation that its use can lead to a decrease in incidence of the disease. In the United States and a number of other low-incidence countries, BCG is used either in very limited circumstances or not at all because: (a) its efficacy is variable and uncertain; (b) in our setting most cases of disease arise from the pool of previously infected persons for whom vaccination would be "too late"; (c) use of BCG can interfere with interpretation of the tuberculin skin test; and (d) other more effective TB control strategies are available: e.g. provision of directly observed therapy (DOT) which renders infectious persons non-infectious; investigation of contacts and treatment of latent TB infection (LTBI) to prevent disease, and programs to control transmission of TB in institutional settings. Certainly in the practice setting, one should never assume that a patient's history of prior BCG means the patient cannot develop TB in the future or does not have TB right now. Indeed every year in the world many hundreds of thousands in Asia, Africa and other high-risk areas develop TB although they had received BCG as children.

Effect of BCG on the tuberculin skin test: The effect of BCG on subsequent TSTs is variable, and indeed much of the problem lies there. Some persons have large (e.g. ≥ 15 mm) tuberculin reactions as a result of BCG, most have smaller reactions (e.g. 5 - 12 mm), while yet others are found not to react to tuberculin at all. Thus, in France, where every child entering school is given BCG, and all children (~700,000 per year) are given a TST several weeks after vaccination. Most will show at least some reaction to tuberculin, but those that do not are given a second dose of BCG. Though this approach is very different than that practiced in the United States, one can conclude from it: (a) that it is certainly both common and safe to apply a TST to BCG vaccinees, and (b) that not everyone who has received BCG then "converts" their skin test. Further, even in vaccinees who do respond to tuberculin after BCG, such reactivity tends to wane with the passage of time and is not likely to last more than 10 years after vaccination in the absence of prior or subsequent infection with Mycobacterium tuberculosis, though ongoing periodic skin testing may also prolong reactivity in vaccinated persons. An interesting experience was reported by the Centers for Disease Control in a study conducted in Botswana in a population with high BCG coverage.(2) There it was found that TST induration ≥ 10 mm could most commonly be attributed to TB infection and not to previous BCG vaccination. For example, it was found that 617 of 783 children studied had zero reactivity after a TST which indicated that BCG did not result in TST induration in most children. On the other hand, children with reported exposure to a case of TB in the household were at much greater risk of having reactions ≥ 10 mm. This reinforces the same conclusions drawn above from the French experience.

Illustrative Examples from Practice

Patient 1: An apparently healthy 15 year old child receives a TST as part of a general health screening on arrival in the United States from a Sudanese refugee camp where he has spent the last four years. His skin test reaction measures 11 mm of induration. He has had a scar, consistent with prior BCG, on his right deltoid for as long as he can remember.

Patient 2: Another apparently healthy 15 year old is seen the same day and receives a TST prior to spending July in a private summer camp. He also has an 11 mm reaction measured at 48 hours. This child is from London and lives with his parents in Buckingham Palace. He received BCG at age 13 (typical for BCG administration in England) and there are no reports of cases of TB in the palace or in the Royal Family.

Discussion: Given their histories, it would be reasonable to take different approaches to the two children even though they are the same age and had identical reactions to tuberculin. Though it is not possible to be 100% certain, it is likely that patient 1 has a "true positive" TST, and that patient 2 has a "false positive" due to BCG. Patient 1 has lived in a high-TB-incidence environment for several years and received vaccine about 15 years ago. It is more plausible to attribute his TST result to infection with M. tuberculosis than to BCG. On the other hand, patient 2 comes from a very low-TB-incidence population and received BCG only two years ago so that it is plausible and reasonable to assume that his TST is a result of BCG. It would be prudent to obtain a chest x-ray for each child. Both will probably be normal since most asymptomatic persons with latent TB infection have

(see ASK EPI page 9)

Changes in the SC 2005 List of Reportable Conditions

Surveillance for Creutzfeldt-Jakob Disease (CJD) will begin in SC in 2005

Shirley Jankelevich, MD, Medical Epidemiologist

Because of a concern that BSE or variant CJD may occur in the US if there are violations of FDA regulations, surveillance for CJD in individuals 55 years or younger will be initiated in South Carolina in 2005. Information on CJD surveillance and laboratory testing may be found at http://www.cjdsurveillance.com. General information on CJD may be found on the CDC web site at http://www.cdc.gov/ncidod/diseases/cjd/cjd.htm.

CJD belongs to a large family of human and animal diseases called the transmissible spongiform encephalopathies (TSEs). They are named after the characteristic spongiform degeneration of infected brains, which become filled with holes until they resemble sponges under a microscope. CJD and other TSEs are thought to be caused by accumulation of an abnormal form of a cellular brain protein called prion protein. Accumulation of the abnormal prions in the brain results in severe neurodegenerative disease and death. Abnormal prions can form in the brain de novo due to mutations in the gene that encodes prion protein resulting in familial CJD. Transmission of abnormal proteins to humans may occur via the ingestion of meat from cows with bovine spongiform encephalopathy (BSE or mad cow disease) and may result in a form of CJD called variant CJD (vCJD).

There are four major forms of human TSEs and each has certain distinct clinical and diagnostic features. These are classic, variant, iatrogenic, hereditary CJD (Table 1.) The incubation period is unknown but is probably years to decades depending on the form of CJD. Table 1 shows the some of the distinguishing features and epidemiology of these different forms of CJD. It is important to remember that CJD may have symptoms similar to other progressive neurological disorders such as Alzheimer's or Huntington's disease but can only be distinguished from them by identification of the unique histologic changes in brain tissue caused by abnormal prions.

Since 1997, strict regulations by the FDA have been in place to help to prevent BSE-infected cattle from entering the US food chain. To date, one BSE-infected cow in Washington State (imported from Canada) in 2003 and one case of vCJD in a British citizen residing in Florida, believed to be transmitted from BSE-infected beef have been identified in the US.

Form of CJD	Clinical features	Age at death (median)	Probable source of infection	Duration of illness	Number of definite & probable cases in US (examination of 1511 suspected cases) (1)	Number of definite & probable cases in UK resulting in death (examination of 1913 suspected cases) (2)
Classic CJD	Early neurological signs; very rapid progression (dementia, myoclonus)	68	Unknown	4-5 months	753	756
Variant CJD	Delayed neurological signs (initially have behavioral, psychiatric signs, then dementia)	28	BSE-infected cattle	13-14 months	1 (British resident)	147
Iatrogenic CJD	Incoordination, dementia		EEG depth electrodes; corneal grafts, human dural grafts; human-derived growth hormone & pituitary gonadotrophin; neurosurgical instruments	8-40 months	5	130
Familial CJD	Dementia, myoclonus		Genetic mutation	~15 months	46	42

Table 1: Forms of Creutzfeld-Jakob Disease

(1) As determined by The National Prion Disease Pathology Surveillance Center of Neuropathology of Case Western Reserve University for the period of 1997-2004 (this number represents a subset of CJD cases in the US)

(2) As determined by the National CJD surveillance unit at the Western General Hospital in Edinburgh, Scotland for the period of 1990-2004 (this number represents a subset of CJD cases in the United Kingdom)

SC 2005 List of Reportable Conditions

Attention: Health Care Facilities, Physicians, and Laboratories

South Carolina Law requires reporting of diseases and conditions on this list to your local public health department. (State Law # 44-29-10 and Regulation # 61-20)

HIPAA: Federal HIPAA legislation allows disclosure of protected health information, without consent of the individual, to public health authorities to collect and receive such information for the purpose of preventing or controlling disease. (HIPAA 45 CFR §164.512)

REPORT IMMEDIATELY
by Phone
(Confirmed and suspected cases)

Any outbreak, unusual disease, or cluster of cases to include a potential biological, chemical, or terrorist event. (1)
- Animal (mammal) bites
- ☣ Anthrax (7)
- ☣ Botulism
- ☣ Food borne outbreak – unusual cluster
- *Haemophilus influenzae* type b, invasive disease (4) (7)
- Measles (rubeola)
- Meningococcal disease (7)
- ☣ Plague (7)
- Poliomyelitis
- SARS – Severe Acute Respiratory Syndrome (7)
  (by current CDC case definition)
- ☣ Smallpox
- ☣ Viral Hemorrhagic Fever

Urgently Reportable
within 24 Hours by Phone

- ☣ Brucellosis (7)
- Cholera (*Vibrio cholerae* type 01 and non-01) (7)
- Diphtheria (7)
- Enterohemorrhagic E. Coli (includes O157:H7) (7)
- Encephalitis, arthropod-borne (7)
  - Eastern Equine (EEE)
  - LaCrosse (LAC)
  - St. Louis (SLE)
  - West Nile Virus (WNV)
- ☣ Glanders (7)
- Hantavirus
- Hemolytic uremic syndrome
- Hepatitis A, acute (IgM Ab + only)
- Hepatitis B, acute (IgM core Ab + only)
- ☣ Melioidosis *(Burkholderia pseudomallei)* (7)
- Pertussis
- ☣ Q fever
- Rabies (human)
- Rubella (includes congenital)
- *Staphylococcus aureus*, vancomycin-resistant (VRSA/VISA)
- Syphilis, primary or secondary (lesion or rash)
- Syphilis, congenital
- ☣ Toxins (i.e., Ricin, *C. perfringens, S.* enterotoxin)
- Trichinosis
- Tuberculosis (7)
- ☣ Tularemia
- Typhoid fever *(Salmonella typhi)* (7)
- ☣ Typhus (scrub) fever

Report within 7 Days

- AIDS (2)
- Antibiotic Resistant Organisms (3) (L)
  (specify site of isolate)
  - ***Streptococcus pneumoniae***, invasive (4)
  - Vancomycin-resistant enterococcus, any site
- Campylobacter enteritis
- CD4 T-lymphocyte count – all results (L) (2)
- Chancroid
- Chlamydia trachomatis, genital site (L)
- Creutzfeldt - Jakob Disease (Age < 55 years)
- Cryptosporidiosis
- Cyclosporiasis
- Dengue
- Ehrlichiosis
- Giardiasis
- Gonorrhea
- ***Haemophilius influenzae***, non-type b invasive disease (4) (7)
- Hepatitis B, chronic
- Hepatitis B surface antigen + (HBsAg +) with each pregnancy
- Hepatitis C, D, E
- HIV-1 or HIV-2 infection (2)
- HIV quantification / viral load (L) (2)
- HTLV-I or HTLV-II infection (L)
- Influenza, positive rapid flu test (#)
- Influenza, positive virus culture isolates (L)
- Influenza, pediatric deaths - age < 17 years
- Kawasaki disease
- Lead poisoning (5)
- Lead tests, all (6) (L, includes office tests)
- Legionellosis
- Leprosy
- Leptospirosis
- Listeriosis (7)
- Lyme disease
- Lymphogranuloma venereum
- Malaria
- Meningitis, aseptic (8)
- Mumps
- Pesticide poisoning
- ☣ Psittacosis
- Rocky Mountain Spotted Fever
- Salmonellosis (7)
- Shigellosis (7)
- Streptococcus group A, invasive disease (4)
- Streptococcus group B, age < 90 days
- ***Streptococcus pneumoniae***, invasive, (4)
  (report antibiotic resistance patterns) (3)
- Syphilis, latent or tertiary
- Syphilis, positive serologic test
- Tetanus
- Toxic Shock (Staphylococcal or Streptococcal)
- Varicella
- Varicella death
- Vibrio infections (non-cholera)
- Yellow Fever

☣ **Potential agent of bioterrorism**

(L) Only Labs required to report.

(#) Report only total number of positive results; individual case reporting is not necessary

1. Outbreak: An excess number of cases or syndromes over the expected occurrence of disease within a geographic area or population group.
2. Report HIV or AIDS when serum, urine, or oral fluid specimen is positive by: (a) screening test (e.g., EIA antibody) ***or*** (b) confirmatory test (e.g., Western blot) ***or*** (c) an HIV detection test (e.g., PCR nucleic acid test, including viral load), ***or*** (d) clinical diagnosis of a case of HIV or AIDS. All reactive rapid HIV test results must be reported to DHEC. However, if a confirmation test is performed within 14 days and is negative, reactive EIAs alone should not be reported. All HIV viral load and CD4 test results must be reported by laboratories regardless of results. For reporting procedure, see "How to Report."
3. Antibiotic resistant organisms: a) resistant pneumococcus: MIC ≥ 2µg/ml of penicillin G (or Oxacillin disc zone ≤ 19mm) or resistance to any single drug accepted as effective treatment; b) Vancomycin-resistant enterococcus: MIC ≥ 32 µg/ml of vancomycin. The definition of resistance may differ between laboratories by test methods used to determine susceptibility. Reports should specify the site from which the isolate was obtained and the drug susceptibility profile.
4. Invasive disease = isolated from normally sterile site: blood; bone; CSF; joint; pericardial, peritoneal or pleural fluid; necrotizing fasciitis; and cellulitis only if isolate is from a tissue biopsy. Always specify site of isolate.
5. Physicians should report serum lead level ≥10 µg/dL for children under 6 years of age and ≥ 25 µg/dL for persons 6 years or older.
6. Labs must report results of all lead tests performed. This includes lab tests performed in physician offices.
7. Labs should submit these isolates and positive serologies to the DHEC Bureau of Laboratories for confirmatory testing, serotyping, or serogrouping.
8. Acute meningeal symptoms, fever, CSF pleocytosis, sterile culture. Consult SC DHEC in outbreaks to submit specimens to lab for virus identification.

How to Report

Submit reports by one of the following methods:

1. For immediately reportable conditions (nights/weekends/holidays), call your health district office or 1-888-847-0902 toll free.
2. Routine reports may also be phoned in to your district/ local health department.
3. Complete the DHEC 1129 Disease Report Card and mail in an envelope marked confidential to your district/local county health department.
4. HIV and AIDS must be reported by calling 1-800-277-0873 or (803) 898-0758, or by submitting a DHEC 1129 Disease Report Card (available locally) or appropriate CDC Case Report Form, to the STD/HIV Surveillance Division, Mills Jarrett Complex, Box 101106, Columbia, SC 29211.

What to Report

- Patient's name
- Patient's complete address, phone, date of birth, race, sex, county, Social Security Number
- Physician's name and phone
- Name, institution, and phone number of person reporting
- Disease or condition
- Date of onset of disease and date of report
- Lab results, specimen site, collection date
- Status: if pregnant, in daycare, or a food-handler

DHEC may request additional clinical information using a Case Report Form.

District Public Health Offices

Mail or call reports to the District Epidemiology/Disease Reports office in each district.

Appalachia I
(Anderson, Oconee)
220 McGee Road
Anderson, SC 29625
Phone: (864) 231-1966
Fax: (864) 260-5623
Nights / Weekends: 1-866-298-4442

Appalachia II
(Greenville, Pickens)
P.O. Box 2507
200 University Ridge
Greenville, SC 29602-2507
Phone: (864) 282-4139
Fax: (864) 282-4373
Nights / Weekends: (864) 460-5355 or 1-800-993-1186

Appalachia III
(Cherokee, Spartanburg, Union)
P.O. Box 4217
151 E. Wood Street
Spartanburg, SC 29305-4217
Phone: (864) 596-2227 ext. 210
Fax: (864) 596-3443
Nights / Weekends: (864) 809-3825

Catawba
(Chester, Lancaster, York)
P.O. Box 817
1833 Pageland Highway
Lancaster, SC 29721
Phone: (803) 283-3175
Fax: (803) 283-0572
Nights / Weekends: 1-866-867-3886 or 1-888-739-0748

Edisto Savannah
(Aiken, Allendale, Barnwell)
1680 Richland Avenue, W. Suite 40
Aiken, SC 29801
Phone: (803) 642-1618
Fax: (803) 642-1619
Nights / Weekends: (803) 827-8668 or 1-800-614-1519

Edisto Savannah
(Bamberg, Calhoun, Orangeburg)
P.O. Box 1126
1550 Carolina Avenue
Orangeburg, SC 29116
Phone: (803) 533-7199
Fax: (803) 533-7134
Nights / Weekends: (803) 954-8513

Low Country
(Beaufort, Colleton, Hampton, Jasper)
1407 King Street
Beaufort, SC 29902
Phone: (843) 525-7603
Fax: (843) 525-7621
Nights / Weekends: 1-800-614-4698

Palmetto
(Fairfield, Lexington, Newberry, Richland)
2000 Hampton Street
Columbia, SC 29204
Phone: (803) 576-2749
Fax: (803) 576-2993
Nights / Weekends: (803) 304-4252

Pee Dee
(Chesterfield, Darlington, Dillon, Florence, Marlboro, Marion)
145 E. Cheves Street
Florence, SC 29506
Phone: (843) 661-4830
Fax: (843) 661-4859
Nights / Weekends: (843) 660-8145

Trident
(Berkeley, Charleston, Dorchester)
4050 Bridge View Drive, Suite 600
N. Charleston, SC 29405
Phone: (843) 746-3832
Fax: (843) 746-3851
Nights / Weekends: (843) 219-8470

Upper Savannah
(Abbeville, Edgefield, Greenwood, Laurens, McCormick, Saluda)
P.O. Box 3227
1736 S. Main Street
Greenwood, SC 29646
Phone: 1-888-218-5475
Fax: (864) 942-3690
Nights / Weekends: 1-800-420-1915

Waccamaw
(Georgetown, Horry, Williamsburg)
2830 Oak Street
Conway, SC 29526-4560
Phone: (843) 365-3126
Fax: (843) 365-3153
Nights / Weekends: (843) 381-6710

Wateree
(Clarendon, Kershaw, Lee, Sumter)
P.O. Box 1628
105 North Magnolia Street
Sumter, SC 29150
Phone: (803) 773-5511
Fax: (803) 773-6366
Nights / Weekends: 1-877-831-4647

Bureau of Disease Control
Acute Disease Epidemiology Division
1751 Calhoun Street
Box 101106
Columbia, SC
Phone: (803) 898-0861
Fax: (803) 898-0897
Nights / Weekends: 1-888-847-0902

D H E C
PROMOTE PROTECT PROSPER
South Carolina Department of Health and Environmental Control

Changes in the SC 2005 List of Reportable Conditions

Change in Rapid Influenza Test Surveillance

Lena Bretous, MD, MPH
Medical Epidemiologist

This influenza season, each lab and clinical practice should report to DHEC the total number of positive influenza rapid antigen test each week. These should be reported for the lab or practice and county where the test is performed and the type of influenza (A, B or A/B) that the test detects. This is a change from the 2004 influenza rapid test reporting requirements that required personal identifying information on each case. This change will simplify reporting and improve the timeliness of reporting of positive rapid tests. The positive rapid influenza test results by county will be used to monitor flu activity and distribution in the state, along with the two other components of the influenza surveillance system: laboratory culture of isolates, and the statewide sentinel physicians who report rates of influenza-like illness in their practice. One may still use 1129 disease report cards to report summary numbers of positive rapid tests and virus type detected OR use a weekly summary worksheet provided by your local health department and fax or email the summary information on a weekly basis.

Please note, positive rapid antigen test by summary number does not replace the mandatory reporting of positive influenza viral cultures, by name with other personally identified information on 1129 cards to DHEC. All other diseases on the list continue to require complete demographic information. Please remember that influenza surveillance information, updated weekly, may be found on the DHEC web site at http://www.scdhec.net/hs/diseasecont/acuteepi/flu.htm

Pediatric Influenza-related Deaths Surveillance

Lena Bretous, MD, MPH
Medical Epidemiologist

Beginning in 2005, Pediatric influenza-related deaths of individuals up to and including 17 years of age, will be a nationally notifiable disease, therefore DHEC is adding this to the List of Reportable Diseases. The Council for State and Territorial Epidemiologists (CSTE) and the CDC recently made Pediatric Influenza-related deaths reportable. Physicians are to report such deaths to their local health department. Information required includes, but is not limited to: a positive rapid influenza test or viral isolate culture, clinical history including complications during the acute illness, co-morbid medical conditions that preceded the illness, site of medical care (inpatient or outpatient), and history of current influenza vaccine status. Physicians should report cases to the local health department Disease Surveillance and Response Coordinator.

Surveillance of Aseptic Meningitis

Shirley Jankelevich, MD
Medical Epidemiologist

Aseptic meningitis has been added to the SC DHEC List of Reportable Conditions in 2005. Surveillance data for aseptic meningitis will allow DHEC to monitor changes in trends, identify causes of severe cases, and allow interventions during outbreaks.

Although most cases of aseptic meningitis are caused by enteroviruses, other viruses, partially treated bacterial meningitis, fungi, rickettsiae, protozoans, helminthes, spirochetes, and a wide variety of noninfectious diseases and conditions and medications can also present as aseptic meningitis. For the purposes of surveillance in S.C., aseptic meningitis is defined as inflammation of the meninges associated with fever, meningeal signs and symptoms, CSF pleocytosis with sterile bacterial and fungal CSF cultures.

Viral culture isolates from CSF and other appropriate clinical materials should be sent to DHEC Bureau of Laboratories for virus identification only during an outbreak of aseptic meningitis. DHEC epidemiologists will consult with laboratories to define the number of specimens to submit for virus identification in an outbreak.

Revised Listeriosis Reporting Requirement

Julie Schlegel, MSPH
Foodborne Epidemiologist

Listeriosis will be designated as one of the diseases for which clinical isolates and serology should be submitted to the DHEC Public Health Laboratory for confirmatory testing, serotyping, or serogrouping. This enhanced surveillance will aid in the identification of clusters and outbreaks of Listeriosis.

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Meet our New Staff in the Bureau of Disease Control

Lena Bretous, MD, MPH - Medical Epidemiologist.

Dr. Bretous obtained her medical degree from Jeffereson Medical College in Philadelphia and a Master of Public Health from the University of South Carolina. She has an undergraduate degree in architecture from Columbia University. She received medical specialty training in Preventive Medicine from USC School of Medicine. In addition to her regular duties as a Medical Consultant with the Division of Acute Disease Epidemiology, Dr. Bretous is the coordinator for West Nile virus and Influenza surveillance.

Wayne Duffus, MD, PhD - Director of HIV and STD Medicine.

Originally from Kingston, Jamaica, Dr. Duffus graduated from the Albert Einstein College of Medicine in Bronx, NY and completed residency training in Internal Medicine at the Columbia Presbyterian Medical Center in New York City and fellowship training in Infectious Diseases at Emory University School of Medicine in Atlanta, GA. Most recently her worked as an Epidemic Intelligence Service Officer for CDC. Dr. Duffus is on the faculty as Clinical Assistant Professor at USC Department of Medicine, Division of Infectious Diseases where he sees HIV-AIDS patients in the Ryan White Clinic. His duties at DHEC are primarily to conduct research in HIV-AIDS and STD, and serve as medical consultant for HIV, STD, and hepatitis. He will also provide medical consultation to the AIDS Drug Assistance Program and Ryan White Consortia.

G.. T. (Tom) Fabian, MD, MPH - Medical Director, Bioterrorism Surveillance and Response Program.

Dr. Fabian received his medical degree from the Medical University of South Carolina and a Master of Public Health from the Unversity of Texas Health Science Center at Houston. He has a BS in physics from Clemson University and is board certified by the American Board Of Preventive Medicine. In 1996, he retired as a Colonel from the United States Air Force, and his last appointment was Hospital Commander at Shaw A.F.B. Prior to joining the Division of Acute Disease Epidemiology, he was the District Health Director for the Upper Savannah Public Health District from 1997 to 2003. Dr. Fabian provides medical direction for the BT Surveillance & Program including the National BT Hospital Preparedness Program and the Strategic National Stockpile. He also provides oversight of the development of the District Mass Casualty Plans and serves as a medical consultant in communicable disease epidemiology.

Shirley Jankelevich, MD - Medical Epidemiologist.

Dr. Jankelevich earned a BA from Queens College, CUNY and completed additional coursework in Biochemistry at Duke University and received her medical degree from the Albert Einstein College of Medicine, Bronx, N.Y. She completed an Internship and Residency in Pediatrics at Yale-New Haven Hospital, Department of Pediatrics, Yale University School of Medicine and a Postdoctoral Fellowship in Pediatric Infectious Diseases, Department of Pediatrics, Yale University School of Medicine, New Haven, CT. Dr. Jankelevich is Board Certified in both General Pediatrics and in Pediatric Infectious Diseases by the American Board of Pediatrics. From March 2000, she was a Medical Officer in the Pediatric Medicine Branch, Therapeutics Research Program, Division of AIDS, NIAID at the National Institutes of Health. Concurrently, beginning January 2003, she was an Assistant Professor of Pediatrics, Uniformed Services University of the Health Sciences, Bethesda, MD. In addition, to her duties as a Medical Epidemiolgist with the Division of Acute Disease Epidemiology, she will serve as the Medical Consultant for the Immunization Division.

Julie Schlegel, MSPH - Foodborne Epidemiologist.

Julie earned a Master of Science and Healthcare Planning from Florida State University. Prior to coming to DHEC, she was an Epidemiologist with the state of Maine. Julie's position as Foodborne Epidemiologist is new with the Division of Acute Disease Epidemiology. She coordinates surveillance and response for enteric diseases.

Mary Anne Wenck, DVM, MPH - Epidemic Intelligence Service (EIS) Officer.

Dr. Wenck earned her verterinary medicine degree from the University of Tennessee and a Master of Public Health degree from the University of South Carolina. Her bachelor's degree is in biology from Warren Wilson College. She has 11 years experience in veterinary practice in Spartanburg, Aiken, and Barnwell. The EIS is a CDC training program in field epidemiology. Dr. Wenck has joined us to learn about public health in S.C., serve as a liaison to CDC, and work as a Medical Epidemiologist in the Division of Acute Disease Epi.

Claire Youngblood, MA - Data Manager, Carolina Health Electronic Surveillance System (CHESS).

Claire obtained a BA from Wofford College and a Master of Arts in Sociology from the University of South Carolina. Prior to joining DHEC, she was a Research Analyst/Statistician at the S.C. Department of Alcohol and Other Drug. She also has 11 years experience as an Adjunct Professor of Sociology. Claire helps maintain data quality in CHESS and assists the Epidemiology staff in retrieving and interpreting data.

(*ASK EPI continued from page 3)*

no radiographic abnormalities, and BCG does not produce pulmonary disease in immunocompetent persons. In the less likely case that either x-ray showed typical "footprints" of TB (e.g. calcifications in hilar nodes and/or in the parenchyma, or apical scars), these could, for either child, be taken as evidence that the TST was a "true positive." In the absence of evidence of TB disease, treatment for latent TB infection would be recommended for patient 1. In the absence of evidence of TB disease or of pulmonary calcifications, it would be reasonable not to treat patient 2, though the potential risks and benefits of treatment could be discussed with his parents.

Comment: These hypothetical cases demonstrate a general approach to thinking through these types of situations. In the case of the Thai you described, one should advise her: (a) that it is safe for her to be skin tested, (b) that since she received BCG over 20 years ago that a large TST reaction now would probably indicate true infection with M. tuberculosis, (c) that should her TST measure ≥10 mm the recommendation would be to ignore her history of BCG and consider her to be infected with M. tuberculosis , (d) that treatment of latent TB infection would also be recommended ó especially since in her new job as a nurse she would potentially put many patients at risk should she develop TB.(3) Also, adverse reactions to isoniazid, the drug most commonly used to treat LTBI, are uncommon in young patients of her age. A negative pre-employment TST (the most likely outcome) would provide a useful baseline against which to evaluate subsequent annual TSTs as are required of hospital employees. Finally, it is important to view this entire discussion in the context of the current epidemiology of TB in the United States (~15,000 cases per year) where over 50% of new cases are now diagnosed among the foreign-born, most or many of whom had previously received BCG (4,5). In South Carolina, only 38 (15%) of the 254 cases reported in 2003 were foreign-born. Nonetheless, as the foreign-born population continues to increase, familiarity with issues relating to BCG, tuberculin skin testing, and tuberculosis will be increasingly useful in clinical practice.

Note: Consultation about TB can be obtained from DHEC's Division of Tuberculosis Control (DTBC) at 803-898-0558 or the TB nurse in any County Health Departments who can also refer complex clinical questions to one of our TB consultants. The DTBC can also arrange for a speaker to address issues relating to TB for hospital conferences, grand-rounds, etc.

References and web resources:

1. **The Role of BCG Vaccine in the Prevention and Control of Tuberculosis in the United States.** (Joint statement by Advisory Council for the Elimination of Tuberculosis and the USPHS Advisory Committee on Immunization Practices). MMWR April 26, 1996 /Vol 45/No. RR-4. [Available online at www.cdc.gov/mmwr/preview/ind96_rr.html and has 80+ references on BCG.]

2. **Tuberculin Skin Test Survey in a Pediatric Population with High BCG Vaccination Coverage - Botswana, 1996.** MMWR Weekly of September 12, 1997. [Available at www.cdc.gov/mmwr/preview/index97.html]

3. **Targeted Tuberculin Testing and Treatment of Latent Tuberculosis Infection.** MMWR June 9, 2000 / Vol 49 / No. RR-6. [Available at www.cdc.gov/mmwr/indrr_2000.html]

4. **Recommendations for Prevention and Control of Tuberculosis Among Foreign-Born Persons**. MMWR September 18, 1998 / Vol. 47 / No. RR-16. [Available at www.cdc.gov/mmwr/preview/ind98_rr.html]

5. **Trends in Tuberculosis - United States, 1998-2003. MMWR March 19, 2004 / Vol 53 / No. 10.** [Available at: www.cdc.gov/mmwr/weekcvol.html]

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